DSL/Line Splitting/Line Sharing

ISSUE V.9. This is an issue exclusive to AT&T.

Under what terms and conditions must Verizon and its data affiliate or their successors or assigns allow AT&T to purchase advanced services for resale?

Witness: C. Michael Pfau
Attorney: Richard Rubin

AT&T's Position:

Verizon and its data affiliate and their successors and assigns must allow AT&T to purchase advanced services for resale over a customer's existing loop facilities, irrespective of the service architecture selected by AT&T to provide any voice services to that customer.

Wholesale advanced services capabilities, including but not limited to access services, must be made available at any rate available to wholesale purchasers, either under tariff or contract. Retail services must be provided at the current resale discount established by the Virginia SCC. In both instances, no restrictions may be imposed that would prevent AT&T from connecting an unbundled local loop to either a retail or wholesale advanced data service offering or capability. Likewise, no such limitations should prevent AT&T from connecting a loop obtained through use of a resold service to either a retail or wholesale advanced service capability.

It is clearly technically feasible to provide, over a single loop, both resold advanced services and voice services that are offered through the use of an unbundled local loop, in either a UNE-P or UNE-Loop configuration. Therefore, Verizon may not impose any restrictions that would prevent AT&T from providing the resold service over

the existing loop serving the end user, regardless of whether the loop is obtained from Verizon as an unbundled network element or through service resale.

If a resold advanced service is connected to a loop that AT&T obtains as an unbundled network element, Verizon may not decline to provide the advanced service to AT&T for resale unless AT&T seeks to apply charges to the Verizon entity providing such data service that exceed the charges that Verizon would otherwise apply to a CLEC that is engaged in a similar configuration of line sharing.

Proposed Remedy:

Sections 11.0 – 11.2 of AT&T's proposed agreement set forth contract terms and conditions that are necessary and appropriate to resale of advanced services.

Verizon's Position:

In technical workshops conducted as part of the Pennsylvania PUC's review of Verizon Pennsylvania's 271 application, Verizon's counsel acknowledged that the D.C. Circuit Court's decision in *ASCENT v. FCC*, 263 F.3d 662 (D.D.C. 2001) requires Verizon's advanced services affiliate, Verizon Advanced Data, Inc., to make advanced services available for resale.[167] To date, however, there has been no agreement on how that requirement will be addressed.

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167 Pennsylvania PUC Docket No. M-00001435, Consultative report on Application of Verizon Pennsylvania Inc. for FCC authorization to provide In-Region, InterLATA Service in Pennsylvania, transcript of February 15, 2001 Further Technical Conference, at 18-22.

Relevant Authorities:

Act, §§ 251(c)(3)&(4), 252(d)(3).

FCC Rules 51.307(c), 51.309(a).

ASCENT v. FCC, 263 F.3d 662 (D.D.C. 2001).

First Report and Order, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, 11 FCC Rcd. 15499 (1996) (Local Competition Order).

Second Report and Order, Deployment of Wireline Service Offering Advanced Telecommunications Capability, CC Docket No. 98-147 (rel. Nov. 11, 1999) (Advanced Services Resale Order).

Ex. Parte: To Determine Prices Bell Atlantic-Virginia, Inc. is Authorized to Charge Competitive Local Exchange Carriers, PUC970005 (April 15, 1999).

FCC Report and Order, Policy and Rules Concerning the Interstate, Interexchange Marketplace, CC Docket No. 96-61 and 98-183, FCC 01-08 (rel. March 30, 2001).

Explanation of AT&T's Position, Including Discussion of Relevant Authority:

The D.C. Circuit's recent decision in ASCENT v. FCC, 263 F.3d 662, 668 (2001) specifically holds that ILEC data affiliates are subject to all of the obligations of § 251(c):

> "As the Commission concedes, Congress did not treat advanced services differently from other telecommunications services. It did not limit the regulation of telecommunications services to those that rely on the local loop. For that reason, the Commission may not permit an ILEC to avoid § 251(c) obligations as applied to advanced services by setting up a wholly owned affiliate to offer those services" (internal citations omitted).

The ASCENT case specifically addressed the issue of whether ILECs could avoid their resale obligation under § 251(c)(4) by establishing a separate wholly owned advanced services affiliate. The court squarely held that ILECs may *not* do so. Accordingly, Verizon must make its advanced services available to AT&T on a resale

basis, pursuant to the Commission's existing rules on the resale of such services, regardless of whether they are provided by Verizon's affiliate or Verizon itself.

The Commission's Advanced Services Resale Order provides that all of an ILEC's advanced services, both wholesale and retail, are subject to resale, pursuant to § 251(c)(4):

> [W]e conclude that advanced services sold at retail by incumbent LECs to residential and business end-users are subject to the section 251(c)(4) discounted resale obligation, without regard to their classification as telephone exchange service or exchange access service. This finding reinforces the resale requirement of the Act by ensuring that resellers are able to acquire advanced services at wholesale rates.[168]

Moreover, although an ILEC's wholesale advanced services are not subject to a resale discount under § 252(d)(3), the ILEC's retail services are subject to the resale discount.

In addition, the Commission's recent order permitting the bundling of basic services with CPE or enhanced services requires dominant carriers such as Verizon to make their basic services available on a nondiscriminatory basis to all potential purchasers.[169] Therefore, Verizon cannot claim that it has "no retail services" that would be subject to the resale obligation. Indeed, Verizon has admitted in Pennsylvania 271 Technical Workshops that its data affiliate provides service to retail customers.[170]

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168 Second Report and Order, Deployment of Wireline Service Offering Advanced Telecommunications Capability, CC Docket No. 98-147 (rel. Nov. 11, 1999) ¶ 3.

169 Report and Order, Policy and Rules Concerning the Interstate, Interexchange Marketplace, CC Docket No. 96-61 and 98-183, FCC 01-08 (rel. March 30, 2001) ¶¶ 37, 43.

170 Pennsylvania PUC Docket No. M-00001435, Consultative report on Application of Verizon Pennsylvania Inc. for FCC authorization to provide In-Region, InterLATA Service in Pennsylvania, transcript of February 28, 2001 Further Technical Conference, at 319-320.

The Virginia State Corporation Commission has established that Verizon's retail services are subject to a discount of 21.3%.[171] Accordingly, Verizon's retail data services are subject to a discount of 21.3%.

Verizon must also permit AT&T to use resold advanced services, either on a standalone basis or in conjunction with any voice service that AT&T provides over the customer's existing ILEC loop (assuming that the loop is capable of providing the advanced service). Otherwise, AT&T cannot practically use UNE-P or a UNE-Loop entry strategy to serve its customers. The Commission has long held that CLECs may access UNEs in any technically feasible manner, and in a way that enables them to provide any telecommunications service they choose. As demonstrated below, there is no basis to argue that it is technically infeasible to use both UNEs and resold advanced services over a single loop to serve end users. Therefore, carriers that purchase UNEs to provide voice service -- using either UNE-P or UNE-Loop architecture -- may not be denied the opportunity to use those UNEs to enable their customers to receive all the services they want to provide. The fact that one of those services provided over the UNE is obtained at a resale price is irrelevant to this analysis.

It is clearly technically feasible to provide resold advanced services over a UNE loop. A CLEC that uses UNE-P would access Verizon's advanced service in the same way that Verizon provides line sharing today in conjunction with its advanced service (data) affiliate. Indeed, the physical facilities used to provide the voice and advanced

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171 AT&T COMMUNICATIONS OF VIRGINIA, INC., For arbitration of unresolved issues from interconnection negotiations with Bell-Atlantic-Virginia, Inc., pursuant to Section 252 of the telecommunications Act of 1996, Case No. PUC960100, Order Resolving

services are identical, with Verizon's circuit switch providing voice service and the its DSLAMs providing access to the its advanced services network.

For a CLEC that uses a UNE-Loop architecture (including its own switch) to provide voice service, the addition of the ILEC's Verizon advanced service requires only that the "split" high frequency signals be connected to the ILEC's Verizon DSLAM using ordinary cross-connects. Again, this can be accomplished by using the same techniques used to provide line sharing.

> (1) If the Verizon provides access to a split loop using its own splitter (which AT&T believes is a requirement of providing access to the unbundled loop element), then (a) the voice (low frequency) signal output port of the Verizon-provided splitter would be connected to the CLEC's collocation (and from there by the CLEC to its voice switch) and (b) the high frequency signal output port of that same splitter would be connected to Verizon's DSLAM and then to Verizon's packet switching network. Regardless of whether or not the CLEC elects to provide the switching functionality for the low frequency spectrum transmission, a disruption of the customer's operating voice service is involved, but should be indistinguishable in all respects from what occurs when Verizon provides a splitter and implements line sharing for itself or its advanced services affiliate.
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> (2) If the CLEC provides a splitter in its own collocation in the customer's serving central office, Verizon would connect the loop outside plant to the facility connecting to the splitter input port. The CLEC will connect the low frequency output port of the splitter to its own local switching functionality, which would include use of a backhaul facility out of the office. The CLEC would direct Verizon to connect the facility associated with the high frequency signal output port of its splitter to Verizon's DSLAM and packet switching network. In all regards, the cross-connections required and the necessary customer disruption that occurs when the configuration is established are virtually indistinguishable to those involved in line sharing.
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> (3) In cases where Verizon must provide access to the entire loop when the it deploys next generation digital loop architecture, implementing this service arrangement is a simple matter of establishing cross-connects to the appropriate

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Wholesale Discount for Resold Services at 5 (Nov. 8, 1996) and Amending Order (Nov. 13, 1996), at 2 [for the 21.3% number].

(CLEC or Verizon) voice switch and to the DSLAM and packet network of the ILEC Verizon entity providing the advanced service.

The only question that remains is the charges that AT&T may assess to the Verizon advanced services entity when AT&T uses an unbundled loop to provide service using either a UNE-P or UNE-L architecture. If AT&T pays Verizon the full cost of the loop UNE, it must be permitted to charge the Verizon advanced service entity the same charges that such entity would otherwise pay Verizon for its use of the loop. In addition, if the customer elects to assign an existing data service commitment to AT&T, the Verizon data entity must be required to accept such assignment, provided that AT&T does not seek to charge the data affiliate more than the above-described amount. Moreover, the Verizon data entity should not be allowed to assess any termination charges on any party following such assignment, provided that AT&T does not terminate the serving arrangement before the end of the end user's term commitment. This keeps all parties whole and places Verizon in the same position it would be in if it (alone or in conjunction with its affiliate) provided both voice and advanced services to the end user.

Other Proceedings:

AT&T is currently investigating which, if any, state statutes and judicial and regulatory decisions address this issue.

ISSUE III.10 This issue is common to AT&T and WorldCom.

How and under what conditions must Verizon implement Line Splitting and Line Sharing?

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AT&T's Position:

Verizon must implement both line sharing and line splitting in a nondiscriminatory and commercially reasonable manner that allows AT&T to provide services in the high frequency spectrum of an existing line on which Verizon provides voice service (line sharing) or on a loop facility provided to AT&T as a UNE-loop or as part of a UNE-P combination (line splitting). Verizon must implement line splitting in a nondiscriminatory and commercially reasonable manner that enables AT&T to use all of the features, functions and capabilities of a loop so that AT&T (or AT&T and its authorized agent) can provide services in both the low frequency and high frequency spectrum ("HFS") of a customer's existing loop facility that AT&T leases from Verizon. Specifically,

- All aspects of the operational support delivered to AT&T in support of line sharing and line splitting arrangements with Verizon must be at no less than parity as compared to the support provided when Verizon engages in line sharing with its own retail operation, with an affiliated carrier, or with unaffiliated carriers. Verizon's provision of line splitting must also be at least at parity with the support it provides to unaffiliated carriers and no worse than the support provided to carriers line sharing with Verizon in reasonably similar equipment configurations.

- Verizon must immediately provide AT&T with the procedures it proposes to implement line splitting on a manual basis. Verizon must implement electronic OSS, that are uniform with regards to carrier interface

requirements, to implement line splitting contemporaneously with its implementation of such capabilities in New York, but in no event later than January 2002.

- Simultaneously with providing automated access to itself or any other carrier, Verizon must provide automated access to all loop qualification data to AT&T. This includes non-discriminatory treatment with regard to planning and implementation activities preceding delivery of the automated access.

- Verizon may not require AT&T to pre-qualify a loop for xDSL functionality. However, if AT&T elects not to pre-qualify a loop and the loop is not currently being used to provide services in the HFS, Verizon shall not be liable to AT&T if the loop is unable to support service in the HFS. If the loop was previously used to provide a service in the HFS, then Verizon shall be liable if the loop fails to meet the operating parameter of a qualified loop.

- At AT&T's option, AT&T (or its authorized agent) may provide the splitter functionality in virtual, common (*a.k.a.* shared cageless) or traditional caged physical collocation. In addition, Verizon must, at AT&T's request, deploy a splitter on a line-at-a-time basis as an additional functionality of the loop.

- Regardless of who deploys a splitter or where it is deployed in a line sharing or line splitting arrangement, Verizon shall perform cross-connection wiring at the direction of AT&T (or its authorized agent), including CLEC-to-CLEC cross-connections. Line sharing/splitting shall be implemented in a manner consistent with that ordered in New York.

- AT&T may collocate packet switches in collocation space.

- If a loop facility in a line splitting configuration is connected to Verizon's unbundled local switching functionality, Verizon must support the loop-local switch port-shared transport combination in a manner that is indistinguishable from the operational support Verizon delivers to the retail local voice services Verizon provides in a line sharing configuration, including cases where Verizon shares a line with Verizon Advanced Data, Inc., or another Verizon affiliate, or any unaffiliated carriers.

- Augmentations to existing collocations to enable AT&T to engage in line sharing or line splitting shall be completed in thirty (30) business days.

- In circumstances where it is technically feasible to convert an existing line sharing arrangement to a line splitting arrangement without physical disruption of then-existing service to the end user, Verizon must institute

records-only changes to record the necessary transfer of responsibilities, and it shall not make any changes to the physical facilities used to service the customer, unless AT&T requests otherwise.

- To the extent the establishment of a line sharing or line splitting configuration requires physical retermination of wiring, Verizon shall make such changes in a manner that assures that no less than parity is achieved for AT&T and its customers with respect to out-of-service intervals and all other operational support, as compared to line sharing or line splitting configurations that have equivalent splitter deployment options.

- Verizon may not require any form of collocation by AT&T as a pre-requisite to gaining access to the low frequency spectrum of a loop, the high frequency spectrum of the loop, or both, unless such collocation is required to place equipment employed by AT&T (or its authorized agent) to provide service.

Proposed Remedy:

Sections11.2.17 and 11.2.18 of AT&T's proposed agreement set forth contract terms and conditions that are necessary and appropriate to implement line sharing and line splitting.

Verizon's Position:

Until recently, Verizon and other ILECs took the position that they were not required to perform line splitting for CLECs. Although the Commission stated that line splitting is a requirement in the *Texas 271 Order* in June 2000, this issue remained the subject of considerable dispute until the Commission released the *Line Sharing Reconsideration Order* in January of this year, which held that certain forms of line splitting (*i.e.*, when a CLEC provides a splitter and DSLAM in a collocation) is a *current* obligation. In addition, AT&T did not have a current interest in negotiating issues relating to line sharing until its recent agreement to purchase assets of Northpoint, a now-

bankrupt DSL provider. Moreover, because no large DSL provider (including Rhythms Links, Inc., Covad Communications Corp. and Northpoint Communications, Inc.) pursued arbitration in Virginia, there is no suitable base of contractual provisions from which AT&T can negotiate. Nor is there a suitable Virginia interconnection agreement that would enable AT&T to offer DSL services through line sharing by exercising its rights under §252(i). Accordingly, this is AT&T's first opportunity to resolve line splitting and line sharing issues with Verizon for Virginia.

AT&T is aware from positions that Verizon has taken in neighboring states that there is likely to be significant dispute over its positions on the following issues relating to line splitting and line sharing. These include:

> Loop Qualification - Verizon offers a three-stage process for determining loop makeup information. The first is an automated system which provides a "yes" or "no" answer as to whether line sharing/line splitting can be provided based exclusively on the design parameters of Verizon's own retail (ADSL) offering. Second, Verizon has offered a manual loop query that provides, at an additional price, additional loop information. Third, Verizon will provide an engineering query to provide information on a customized basis.
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> Provisioning Period - Verizon has claimed that line sharing should be provisioned over a six day period, which it claims is at parity with its provisioning period provided for voice lines. Verizon has stated, however, that this period may be reduced as it gains more experience in provisioning line sharing.
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> Splitter Placement - Verizon has refused to provide splitters in the common area of collocation facilities.[172]
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> Collocation Augmentation - Verizon has insisted on retaining a provisioning period for augmenting collocation facilities that is equivalent to the period it takes to build a full-blown traditional collocation facility (*e.g.*, 76 days for physical collocations).

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172 Installation of the splitter in the common area is often referred to as "Scenario B".

Other Collocation Issues – Verizon has generally opposed CLEC positions that would permit CLECs to collocate switching functionality and has denied an obligation to provide or permit CLEC-to-CLEC cross-connections in collocation space.

Verizon-Provided Splitters – Verizon has refused to provide splitters for CLECs and deploy them a line-at-a-time at the request of the CLECs.

Relevant Authorities:

Act, §§ 251(c)(3), 252(c)(6) and 224(f).

Third Report and Order and Fourth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* 15 FCC Rd 3696 at ¶ 25 (1999). (*"Line Sharing Order").*

Third Report and Order on Reconsideration in CC Docket No. 96-98, *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* 15 FCC Rd 3696 at ¶ 25 (1999). (*"Line Sharing Reconsideration Order").*

Memorandum Opinion and Order, *In the Applications of NYNEX Corporation and Bell Atlantic Corporation For Consent to Transfer Control of NYNEX Corporation and Its Subsidiaries*, File No. NSD-L-96-10, (Rel. Aug. 14, 1997).

Application by SBC Communications, Inc. Southwestern Bell Telephone Company and Southwestern Bell Communications Services, Inc. to Provide In-Region, InterLATA Services in Texas, CC Docket 00-65, Memorandum and Order, 2000 WL 870853, (June 30, 2000), ¶ 325 ("*Texas 271 Order*").

Rhythms Links, Inc., Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Amendment for Line Sharing to the Interconnection for Line Sharing to the Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois, and for Expedited Arbitration Award on Certain Core Issues Illinois Commerce Comm. Consol. 00-312, 00-0313, Arbitration Decision (August 17, 2000) ("*Illinois Decision*").

Petition of Covad Communications Company for an Arbitration Award Against Bell Atlantic-Pennsylvania, Inc., Implementing the Line Sharing Unbundling Network Element, Pennsylvania Public Utility Commission Docket No. A-310696F0002; *Petition of Rhythms Links, Inc., for an expedited Arbitration Award Implementing Line Sharing*, Pennsylvania Public Utility Commission Docket No. A-310698F0002, Opinion and Order (August 17, 2000) ("*Pennsylvania Decision*").

Proceeding to Examine Issues Concerning the Provision of Digital Subscriber Line Service, Case 00-C-0127, Opinion and Order (Oct. 31, 2000).

In the Matter of the Arbitration of Rhythms Links, Inc. and Covad Communications Company v. Bell Atlantic-Maryland, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996, Order No. 76488, Case 8842 Phase I (Oct. 6, 2000).

Investigation as to the Propriety of the Rates and Charges Set Forth in M.D.T.E. No. 17, field by Verizon New England, Inc., D.T.E. 98-57-Phase III (Oct. 1, 2000).

Explanation of AT&T's Position, Including Discussion of Relevant Authority:

The Commission's *Line Sharing Order* (¶ 162) required Verizon to implement line sharing no later than June 6, 2000.[173] Thus, there is no question that Verizon must make the high frequency spectrum of a loop available to a requesting carrier when Verizon provides voice service on the low frequency spectrum of the same loop. Moreover, § 251(c)(3) requires that the support that Verizon provides to CLECs in support of line sharing must be at parity with the support it offers to itself or its data affiliate.

Line splitting is required to enable a requesting carrier (alone or in conjunction with its authorized agent) to use a single loop facility to simultaneously provide service to a retail customer in the low frequency spectrum and the high frequency spectrum of the loop. The Commission's recently issued *Line Sharing Reconsideration Order* now makes crystal clear that ILECs can no longer argue that they are not required to support a CLEC's decision to engage in line *splitting* as well, particularly when the CLEC provides

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173 This firm obligation was reiterated in the *Line Sharing Reconsideration Order* (¶ 44), in which the Commission rejected Bell Atlantic's (now Verizon's) request to allow for an alternative implementation schedule based on the work of an industry collaborative process.

its own splitter in a collocation located in the ILEC's serving central office.[174] That order (¶ 18) specifically holds that "ILECs have a current obligation to provide competing carriers with the ability to engage in line splitting arrangements," and that this obligation is independent of their unbundling obligations imposed by the earlier *Line Sharing Order*.

With respect to the types of work (and thus the associated contract obligations) required to support line splitting, the Commission held that ILECs are generally "required to make all necessary network modifications to facilitate line splitting, including providing nondiscriminatory access to OSS necessary for pre-ordering, ordering, provisioning, maintenance and repair, and billing for loops used in line splitting arrangements. Thus, an incumbent LEC must perform central office work necessary to deliver unbundled loops and switching to a competing carrier's physically or virtually collocated splitter that is part of a line splitting arrangement."[175] Moreover, "[b]ecause line splitting is an existing legal obligation, incumbent LECs must allow competitors to order line splitting immediately, whether or not a fully electronic interface is in place."[176] Further, when a customer who is engaged in a line sharing arrangement (in which the ILEC is the voice provider) changes its voice carrier to a CLEC that wants to engage in line splitting with the same data provider, the ILEC is required to "develop

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174 This reinforces the *Texas 271 Order* which specifically made reference to situations where "the voice and data service will be provided by competing carrier*(s)* over a single loop," (emphasis added) thus specifically recognizing more than one carrier could be involved in line splitting.

175 *Id.* ¶ 20.

176 *Id.* n.36.

streamlined ordering processes for migrations between line sharing and line splitting that avoid voice and data service disruption and make use of the existing xDSL-capable loop."[177] In addition, pursuant to the Bell Atlantic – NYNEX merger agreement, Verizon is obligated to provide uniform operational interfaces throughout its operating territory.[178]

As a result of the above, and in light of the fact that collaborative sessions have been underway for some time under the auspices of the NYPSC to address at least a subset of essential line sharing/splitting activities, Verizon is required to make available to AT&T in Virginia the same functionalities that are deployed within New York as a result of the NY collaborative and other orders of the New York Public Service Commission, in a manner that is operationally transparent with respect to the operational interface requirements imposed on AT&T, and in a timeframe substantially the same as in New York. Given that the New York PSC has required Verizon to implement electronic systems to support line splitting by October 2001, that Verizon has committed to implement those systems in Massachusetts at the same time,[179] and that Verizon "intends" to implement them in Pennsylvania, and indeed, across its footprint at the same

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177 *Id.* ¶ 22.

178 *See e.g.*, Memorandum Opinion and Order, *In the Applications of NYNEX Corporation and Bell Atlantic Corporation For Consent to Transfer Control of NYNEX Corporation and Its Subsidiaries*, File No. NSD-L-96-10, (Rel. Aug. 14, 1997) at ¶ 195.

179 *Massachusetts 271 Order* at ¶ 181.

time or as soon after New York as possible,[180] such capabilities should be available in Virginia by October 2001 as well, but certainly no later than January 2002.

Given Verizon's "current" obligation to support line splitting irrespective of the progress toward developing electronic support processes, Verizon must implement all of the general principles discussed herein, including but not limited to nondiscrimination between line sharing and line splitting, and it must also provide AT&T (and other CLECs) a reasonable opportunity to compete against Verizon in the provision of advanced services.[181] Moreover, because its obligations to support line splitting are "immediate" Verizon must immediately provide AT&T with a description of the manual processes it intends to use to support manual implementation of its line sharing obligations until it implements fully electronic support processes.

The nondiscrimination principles of § 251(c)(3) also require that Verizon's support for voice services offered in connection with line splitting must be at least equivalent to the support provided in support of a line sharing arrangement with its advanced services affiliate or any other party. Similarly, if the transition from line sharing to line splitting requires the physical re-termination of wiring, Verizon must make such changes in a manner that is at least at parity with respect to out-of-service intervals and all other operation support provided for line sharing or line splitting configurations that have equivalent splitter deployment options. Nor may Verizon require AT&T to collocate as a prerequisite to obtaining access to the low frequency

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180 Pennsylvania PUC Docket No. M-00001435, *Consultative report on Application of Verizon Pennsylvania Inc. for FCC authorization to provide In-Region, InterLATA Service in Pennsylvania*, Technical Conference, Tr. of February 15, 2001, at 202-208.

spectrum of a loop, the high frequency of the loop, or both, unless such collocation is necessary to place equipment that AT&T (or its authorized agent) elects to use to provide service.

The physical work efforts necessary to implement line splitting and line sharing are virtually identical, and most of the processes needed to support these two activities are either the same or very similar. Accordingly, those processes were required to be in place as of June 6, 2000, and the contract language AT&T proposes to implement Verizon's line splitting obligations is, in most respects, identical to the language necessary to implement its line sharing obligations.

With respect to the specific areas of likely dispute identified above, AT&T's positions are as follows:

> Loop Qualification Data - The latter two stages of Verizon's proposals for access to loop data are necessary only because Verizon has not populated its loop makeup information databases with complete and accurate information. If it did so, then carriers would not face the significant additional time and cost required to perform manual look-ups or engineering queries. The fact that Verizon has implemented "yes"/"no" electronic database that addresses only the needs of its data affiliate is baldly discriminatory to any carrier seeking to provide services with differing loop qualification parameters than do the offerings made by Verizon's advanced services affiliate. In all events, basic nondiscrimination principles require Verizon to make available to AT&T simultaneous and equivalent access to all electronic databases that Verizon, its affiliates and their agents may access that contain loop qualification data. Moreover, AT&T should be entitled to participate in a nondiscriminatory manner with regard to any planning for the implementation of access to Verizon's automated systems.
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> Loop Qualification – AT&T should be permitted to decide, in its sole discretion, whether it will individually qualify loops it will use for line splitting. Verizon should not be liable to AT&T for failure to provide a

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181 251(c)(3).

specific level of service in the HFS if AT&T has not qualified a loop that was not previously qualified. However, if a loop has previously been used by another carrier (including Verizon) to provide service in the HFS, then Verizon shall be responsible if the loop fails to meet the operating parameters of that loop.

Provisioning Period - Verizon's argument that it should be entitled to six days to implement a DSL-capable loop ignores the fact that the customer's line is typically already in use to the customer's home, eliminating the need for a "truck-roll" and that much of the customer record and business aspects of provisioning are eliminated.[182] Moreover, the New York Public Service Commission has required Verizon to provision loops within the lesser of four days or parity with that achieved by Verizon's data affiliate. The Commission added that they "expect Verizon to improve performance in the near term and to decrease the required interval to the lesser of parity with VAD or three days by March 2001."[183]

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182 While adhering to a policy of "parity" in provisioning intervals, the Pennsylvania Commission expressed confidence in VZ-PA's ability to meet a three business day provisioning interval because such provisioning "*does not* entail extensive labor and administrative commitment on the part of the ILEC." *Petition of Covad Communications Company for an Arbitration Award Against Bell Atlantic-Pennsylvania, Inc., Implementing the Line Sharing Unbundling Network Element*, Pennsylvania Public Utility Commission Docket No. A-310696F0002; *Petition of Rhythms Links, Inc., for an expedited Arbitration Award Implementing Line Sharing*, Pennsylvania Public Utility Commission Docket No. A-310698F0002, Opinion and Order (August 17, 2000) ("*Pennsylvania Decision*") at 14.

183 *Proceeding to Examine Issues Concerning the Provision of Digital Subscriber Line Service*, Case 00-C-0127, Opinion and Order (Oct. 31, 2000) at 6, 7 (*aff'd* on provisioning intervals, Jan. 29, 2000); *See also,* The Illinois Commerce Commission ("Illinois Commission") adopted intervals requiring that line sharing be provisioned within three business days initially, with the interval reducing to two business days by September 6 and one business day by December 7. *Rhythms Links, Inc., Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Amendment for Line Sharing to the Interconnection for Line Sharing to the Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois, and for Expedited Arbitration Award on Certain Core Issues* Illinois Commerce Comm. Consol. 00-312, 00-0313, Arbitration Decision (August 17, 2000) ("*Illinois Decision*") at 25; *see also, In the Matter of the Arbitration of Rhythms Links, Inc. and Covad Communications Company v. Bell Atlantic-Maryland, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996,* Order No. 76488, Case 8842 Phase I (Oct. 6, 2000) at 16. ("Verizon Maryland, Inc. shall gradually decrease the intervals for provisioning line sharing to three business days by the end of the first quarter of 2001 (April 1, 2001), as provided by the schedule set forth in this Order.")

Splitter Placement – Verizon's refusal to permit the placement of splitters in shared common areas is not reasonable. Such arrangements are clearly technically feasible and permitting them would enable CLECs to self-provision connections if they chose. Moreover, Verizon fails to show that permitting such arrangements would create significant security concerns. Thus, AT&T should be permitted, at its option, to place splitter functionality in any type of collocation.

Collocation Augmentation – It is unreasonable for Verizon to assert that augmentations to existing collocations should take the same amount of time as the initial establishment of a collocation. Splitters are passive devices that do not have the same power and HVAC needs as other equipment. Thirty days should therefore be sufficient to make the necessary augmentations.

Collocation of Packet Switches –There is no clear line between packet switching and multiplexing (*i.e.*, transmission) functions, and multiplexing functions are integrated into single multifunctional units called "packet switches." Moreover, a fully functional packet switch unit occupies less than a single equipment rack – the minimum possible floor space consumption for any collocated equipment. Further, the statistical multiplexing functionality of packet switches can reduce a CLEC's facility costs by as much as a factor of twenty. In addition, the multiplexing functionality of such equipment is necessary to enable CLECs to fully utilize all of the capabilities of local loops so they can provide both voice and data traffic in packets and send all of those packets over a single loop. Thus, collocation of such equipment is necessary in order for CLECs to be able to effectively and efficiently interconnect with and access UNEs. Further, the Commission's decision not to unbundle packet switching in the UNE Remand Order assumed that CLECs would be able to collocate such equipment to access their customers' high frequency signals. If CLECs cannot do so, then the underpinnings for that decision would evaporate.

CLEC-to-CLEC Cross-Connects – Such cross-connects are often "necessary to enable two CLECs who are not jointly collocated to access all of the features, functions and capabilities of a loop needed to support line splitting. In any event, § 224(f) of the Act requires ILECs to provide nondiscriminatory access to "any" ducts, conduits or rights of way it controls. CLECs would use the ducts and conduits Verizon controls in its own offices to accomplish such connections. Moreover, it would be an unjust, unreasonable and discriminatory condition of collocation in violation of § 251(c)(6) if CLECs were forbidden to connect such wires in their collocation cages.

AT&T also requests that Verizon provide AT&T and other CLECs with the opportunity to obtain access to Verizon-provided splitters on a line-at-a-time basis. The Commission's *UNE Remand Order* defines the unbundled loop to include the "attached electronics" necessary to access all features, functions and capabilities of the loop.[184] Splitters are *not* separate unbundled network elements. Rather, they are devices that are essential for CLECs to gain access to all of the features, functions and capabilities of an unbundled loop. Indeed, splitters are nothing more than passive electronic filters that are attached to the loop to separate the low (voice) frequencies of the signal from the high (data) frequencies on the same facility. Thus, there is no basis to argue that there must be a separate "impairment" analysis before Verizon may be directed to provide splitting functionality as an optional feature on a loop.

AT&T seeks the right, at its option, to require Verizon to provide such attached electronics on a loop (at a cost-based rate) so that AT&T can access the full functionality of that element. There can be no legitimate claim of technical infeasibility. ILECs routinely remove filters, such as load coils, when performing loop conditioning for CLECs. Moreover, some ILECs voluntarily provide splitters to CLECs that engage in line sharing and, more specifically, state commissions have directed that the ILEC provide such functionality on a line-at-a-time basis. The work needed to accomplish the addition of a splitter for line splitting is identical.

Although this Commission has not yet ruled on this question, it has described the issue as one that "merits prompt and thorough consideration" and prompt review and it acknowledged that the Texas PUC was then conducting a proceeding covering this

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184 *UNE Remand Order*, ¶175; FCC Rule 51.319(a).

issue.[185] Similarly, the Indiana Regulatory Commission recently ruled that "a splitter is considered ancillary equipment that allows access to that functionality. A splitter shall be provided as ancillary equipment when requested to allow AT&T access to the [high frequency loop spectrum]."[186] In ordering that the ILEC deploy the splitter functionality, it is critical that one of the options be that the splitter functionality be made available on a line-at-a-time basis. Such capability is also clearly technically feasible, and it has the added benefit of permitting customers to change the data service provider for their loops without the risk of causing a disturbance to their voice service. This is possible because the low frequency output of the splitter would not be affected when the data output is moved to effect the change of data service provider. Obviously, the current precarious financial position of a number of DSL infrastructure providers makes this type of flexibility increasingly important.

Other Proceedings:

The Commission is addressing issues related to the provision of advanced services and line sharing/splitting including (1) collocation of CLEC line cards in the ILEC's remote terminal, (2) means of transmission of CLEC customer data signals back to the central office from the remote terminal, (3) establishment of a UNE-data platform, splitter ownership, and (4) the packet switching UNE in the following proceedings:

> The Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, FCC 00-297; Second Further Notice of Proposed Rulemaking in CC

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185 *Texas 271 Order* ¶ 328.

186 Indiana Utility Regulatory Commission Order, dated November 20, 2000, Cause No. 40571-INT-03, p. 68.

Docket No. 98-147, FCC 00-297; Third Further Notice of Proposed Rulemaking in CC Docket No. 98-147, FCC 01-26; and, Sixth Further Notice of Proposed Rulemaking in CC Docket No. 96-98.

ISSUE V.6 **This issue is exclusive to AT&T.**

Under what terms and conditions must Verizon provide AT&T with access to local loops when Verizon deploys Next Generation Digital Loop Carrier (NGDLC) loop architecture?

Witness: C. Michael Pfau
Attorney: Richard Rubin

AT&T's Position:

Verizon must provide access to an entire loop, regardless of the loop architecture it deploys. Thus, AT&T is entitled to obtain access to an entire loop as an unbundled network element wherever Verizon deploys NGDLC architecture, including all functionalities Verizon has deployed at remote terminals. In addition, if Verizon changes the loop architecture it uses to serve an existing customer of AT&T advanced data services, Verizon may not diminish any of the capabilities of the existing loop used to provide service to such customer.

Proposed Remedy:

Section 11.2 of AT&T's proposed agreement set forth contract terms and conditions that are necessary and appropriate to assure that AT&T may access an entire loop when Verizon deploys NGDLC architecture.

Verizon's Position:

Verizon has argued that when it deploys NGDLC, requesting carriers should not be entitled to access the splitter and DSLAM functionality in remote terminals so long as

it either makes standalone "home run" copper loops available or permits "adjacent remote collocation" in the vicinity of the Verizon remote terminal.

Relevant Authorities:

Act, §§ 251(c)(3) & 153(29).

47 U.S.C. § 153(29).

FCC Rules 51.307(c), 51.319(a).

Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Third Report and Order and Fourth Further Notice of Proposed Rulemaking (Rel. Nov. 5, 1999) (*"UNE Remand Order"*).

In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability And Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Third Report and Order on Reconsideration, CC Docket 98-147, Fourth Report and Order on Reconsideration, CC Docket 96-98 (Jan. 19, 2001) (*"Line Sharing Recon Order"*).

Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket 96-98, First Report and Order, 11 FCC Rcd 15499 (1996) (*"Local Competition Order"*) ¶382; *Fifth NPRM* ¶127.

In the Matter of the Arbitration of Rhythms Links, Inc. and Covad Communications Company v. Bell Atlantic-Maryland, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996, Order No. 76488, Case 8842 Phase I (Oct. 6, 2000).

Investigation as to the Propriety of the Rates and Charges Set Forth in M.D.T.E. No. 17, field by Verizon New England, Inc., D.T.E. 98-57-Phase III (Oct. 1, 2000).

Explanation of AT&T's Position, Including Discussion of Relevant Authority:

Unbundled network elements ("UNEs") are defined by the Act (§ 153(29)) and the Commission's Rules (§ 51.307(c)) to include not merely equipment and facilities, but all of the "features, functions and capabilities" that can be provided through the use of such equipment and facilities. Thus, UNEs are functionalities, not specific items of

equipment or facilities in the ILEC's network. Accordingly, the local loop UNE is defined as:

> "a transmission facility between a distribution frame (or its equivalent) in the incumbent LEC central office and the loop demarcation point at an end-user customer's premises, including inside wire owned by the incumbent LEC. The local loop network element includes all features, functions, and capabilities of the transmission facility. Those features, functions and capabilities include, but are not limited to, dark fiber, attached electronics (except those electronics used for the provision of advanced services, such as Digital Subscriber Line Access Multiplexers), and line conditioning." FCC Rule § 51.319(a).

The FCC has required incumbents to unbundle loops under the "impair" standard of 47 U.S.C. § 251(d)(2)(b). Nothing about next-generation loop architecture alters the basic functionality of a loop, *i.e.*, to provide the transmission functionality needed for customers to send and receive telecommunications signals between their locations and their chosen service provider's network. Thus, Verizon's obligation to provide the unbundled loop, with the necessary functionality to allow AT&T to provide transmission functionality remains. The NGDLC architecture now being installed by ILECs provides exactly what the traditional loop has always provided — transmission functionality for telecommunications signals between a customer's premises and the serving ILEC's central office.

Contrary to the arguments made by Verizon and other ILECs, the fact that the ILECs have unilaterally elected to deploy splitters and DSLAMs in remote terminals to increase the efficiency and reach of the their loop plant is irrelevant in this context, especially since the splitter is merely "attached electronics" to the loop[187] and remotely-

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187 *See also* discussions of Verizon-deployed splitters in Issues V.9 and III.10.

deployed DSLAMs *exclusively* provide a multiplexing functionality, which has consistently been deemed to be a transmission functionality.

Critically, failure to define the local loop to include all of the facilities and functionalities between a customer's premise and the serving ILEC's central office would have dire impacts on competition, because none of the possible alternatives for CLECs would permit widespread competition. The certain result would be even greater monopoly power for ILECs, as they alone would be able to dominate the market for advanced data services and bundled voice and advanced data services. The Commission's intent in promulgating the requirements of the *Line Sharing Order*[188] was the expeditious deployment of line sharing on a nationwide basis. "Both the states and this Commission share the objective of promoting competition among xDSL providers" to "expedite market competition."[189] As the current market environment painfully shows, DSL providers have faced such significant intransigence from ILECs unwilling to support competition for advanced data services that most of the major providers have either gone bankrupt or face serious prospects of bankruptcy.

Further, the Commission's recent *Line Sharing Reconsideration Order* implicitly recognized that it is technically feasible for ILECs to provide CLECs with access to an "entire loop," *i.e.*, a loop that runs from the customer's premises to the ILEC's central office, and it requires ILECs to provide CLECs access to the entire loop "even where the

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188 *Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98, CC Docket Nos. 98-147, 96-98 (rel. Dec. 9, 1999) ("*Line Sharing Order*").

189 *Id. at* ¶ 166.

incumbents have deployed fiber in the loop."[190] Moreover, the Commission there specifically held that the definition of the loop is not limited to copper technology but is "technology-neutral."[191] The Commission further held that CLECs engaging in line sharing have a right to choose whether to locate their advanced services equipment at remote locations or in the ILEC's central office. Accordingly, CLECs have the right to decide whether they wish to collocate at a remote terminal or the central office, "*not* the [place] that the incumbent chooses as a result of network upgrades entirely under its own control."[192]

There is no technical, practical or market difference between line sharing and line splitting for these purposes. Access to an "entire loop" for line splitting requires exactly the same type of connections between the customer's premises and the central office as for line sharing. Moreover, permitting line sharing – but not line splitting -- CLECs to have a choice of where to collocate their equipment places the latter in the same untenable position that the Commission rejected in the *Line Sharing Reconsideration Order* and is inherently discriminatory.

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190 *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability And Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* Third Report and Order on Reconsideration, CC Docket 98-147, Fourth Report and Order on Reconsideration, CC Docket 96-98 (Jan. 19, 2001) at ¶ 10.

191 *Id.*

192 *Id.* ¶ 11 (emphasis added).

There is also no question that forcing line splitting (or line sharing) CLECs to collocate only at a remote terminal would severely impair CLECs' ability to compete.[193]

> First, "home run" copper loops are virtually always inferior as a technical matter compared to NGDLC loops, because, as a matter of physics, a loop's ability to carry DSL signals decreases as the length of copper in a loop increases and a "home run" copper loop has a longer length of copper than an NGDLC loop.
>
> Second, even ILECs acknowledge that remote terminals are quite small and there is typically no space to collocate at such points.
>
> Third, even if space were available to collocate in remote terminals, the costs of doing so are prohibitive in virtually all cases (and the costs of "adjacent remote collocation" are even more prohibitive).

In order to implement the requirement to make "entire loops" available to AT&T (and other CLECs) when an ILEC implements NGDLC loop architecture, it is necessary to:

> (i) provide that such access is unqualified and cannot be avoided through the provision of any substitute "service" or subloop elements;

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193 Use of a card providing DSLAM functionality at the remote terminal avoids the need for costly collocation and should greatly reduces concerns regarding limited collocation space in remote terminals. If and when the requisite technology of a "plug-and-play" card solution or other option providing similar functionality is currently available, Verizon should make this option available to CLECs as a means to provide for line sharing where DLC is present in the loop. *See In the Matter of the Arbitration of Rhythms Links, Inc. and Covad Communications Company v. Bell Atlantic-Maryland, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996,* Order No. 76488, Case 8842 Phase I (Oct. 6, 2000) at 16 ("Verizon shall make available on a non-discriminatory basis to CLECs new technologies, such as DLC equipment and associated line cards which permit line sharing and DSL service over fiber facilities if, and when the network in a given geographic area is capable of supporting such technology"); *Investigation as to the Propriety of the Rates and Charges Set Forth in M.D.T.E. No. 17, field by Verizon New England, Inc.,* D.T.E. 98-57-Phase III (Oct. 1, 2000) at 92 (directing Verizon to file a tariff that would enable CLECs to place or have Verizon place CLEC-purchased line cards in Verizon's DLC electronics at the RT); 47 U.S.C. § 153(29); *see Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket 96-98, First Report and Order, 11 FCC Rcd 15499 (1996) ("*Local Competition Order*") ¶382; *Fifth NPRM* ¶127.

(ii) define the loop to include all equipment and facilities used to provide the functionality of transmitting telecommunications signals between the customer's premises and the ILEC's central office;

(iii) define the "network" side of the loop as the Central Office Terminal, Optical Conversion Device or similar device; and

(iv) assure that AT&T can access its transmission signals at such points by having Verizon run cross-connects to the point(s) necessary to provide service using AT&T's chosen network architecture for the customer.

Other Proceedings:

The Commission is addressing issues related to the provision of advanced services and line sharing/splitting including (1) collocation of CLEC line cards in the ILEC's remote terminal, (2) means of transmission of CLEC customer data signals back to the central office from the remote terminal, (3) establishment of a UNE-data platform, splitter ownership, and (4) the packet switching UNE in the following proceedings:

The Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, FCC 00-297; Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147, FCC 00-297; Third Further Notice of Proposed Rulemaking in CC Docket No. 98-147, FCC 01-26; and, Sixth Further Notice of Proposed Rulemaking in CC Docket No. 96-98.